REMARKS

Applicants appreciate the Examiner's thorough examination of this application.

Claims 1-80 are pending in this application, all of which stand rejected. Applicants respectfully traverse the Examiner's rejections. Further examination and review in view of the remarks provided below are respectfully requested.

I. Rejections under 35 U.S.C. § 101

The Examiner rejected Claims 1-80 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In making the rejection, the Examiner indicated that the Applicants failed to cite "specific results to define a useful, concrete and tangible result," failed to "specify the associated practical application with the kind of specificity the Federal Circuit used," that "Applicant manipulated a set of abstract 'information identifying . . . users that are members of the group' and 'information identifying . . . items that are members of the group' to solve purely algorithmic problems in the abstract" and that "the broadest reasonable interpretation of the claim limitations includes such abstractions." The Examiner made specific reference to "information identifying . . . users that are members of the group" and "information identifying . . . items that are members of the group" as found in both the specification and claims of the application as being "simply abstract constructs that do not limit the claims to the transformation of real world data . . . by some disclosed process." Applicants respectfully traverse the Examiner's rejection.

In contrast to Examiner's assertion, Applicants respectfully submit that the claimed invention is directed toward statutory subject matter as required by 35 U.S.C. § 101. MPEP 2106 states that the Examiner has "the burden to establish a *prima facie* case that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result" and that "[o]nly when the claim is devoid of any limitation to a practical application in the technological arts should it be reject under 35 U.S.C. 101." The same section of the MPEP, in citing *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027-28 (Fed. Cir. 1997), further states that the Examiner is "to give claims their broadest reasonable interpretation in light of the supporting disclosure." Applicants submit that the Examiner has failed to

meet the required burden or to give the claims the broadest **reasonable** interpretation in this case.

Applicants' claimed invention has a practical application because, as a whole, it produces a "useful, concrete and tangible" result. In at least one embodiment of Applicants' invention, "a software facility ('the facility') [provides] for automatically characterizing and enabling a user to persistently name data segments containing items." The facility "receives information identifying one or more groups of items, such as groups identified among the items using data mining data segmentation techniques," and the information received by the facility "also indicates, for each item in each group which attributes characterize the item from any number of possible attributes (for that item)." (page 4, lines 10-19). "Based upon the membership of the groups and the attributes of the items in each group, the facility applies additional data mining techniques to identify, for each group, characteristics of the items of the group that most significantly distinguish the group from other groups." (page 4, line28 to page 5, line 2). The information presented by the facility gives a user of the facility a sense of the significance of the group it characterizes and enables the user of the facility to compose a mnemonic name for the group (page 5, lines 25-28) and assists the user to conceptualize the significance of a particular group of items and to persistently name the group for future reference. (page 6, lines 3-5).

Therefore, in contrast to Examiner's assertion, in at least the embodiment referenced above, Applicants have cited "specific results to define a useful, concrete and tangible result," and specified "the associated practical application with the kind of specificity the Federal Circuit used."

Applicants also disagree with Examiner's assertion that Applicants' invention and, in particular, the references, "information identifying . . . users that are members of the group" and "information identifying . . . items that are members of the group" are simply abstract constructs that do not limit the claims to the transformation of real world data . . . by some disclosed process, and that "the broadest reasonable interpretation of the claim limitations includes such abstractions." The Examiner is to give claims their broadest reasonable interpretation in light of the supporting disclosure. MPEP 2100.

When the claims and, in particular, the aforementioned references are reasonably interpreted in light of the supporting disclosure, the aforementioned references are not abstract constructs. "Information identifying . . . users that are members of the group" and "information identifying . . . items that are members of the group" are not abstract because, in at least one embodiment of the invention, "the information identifies the attributes possessed by each item that is in any of the groups." (page 9, lines 5-6). Numerous examples of the information and attributes are provided throughout Applicants' disclosure. Therefore, in direct contrast to Examiner's assertion and when **reasonably** interpreted in light of Applicants' disclosure, "information identifying . . . users that are members of the group" and "information identifying . . . items that are members of the group" references are not abstract, but, rather, are tangible constructs that are used to identify the users in a group or attributes possessed by the users in order to facilitate the persistent naming of the group.

Accordingly, Applicants respectfully request reconsideration and allowance of Claims 1-80.

II. Rejections under 35 U.S.C. § 112, first paragraph

The Examiner rejected Claims 1-80 under 35 U.S.C. § 112, first paragraph, on the basis that "current case law (and accordingly, the MPEP) requires such a rejection if a § 101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed *how* to practice the *undisclosed* practical application." Applicants respectfully traverse the rejection. Applicants reasoning and response to Examiner's 35 U.S.C. § 101 rejection make the basis for this rejection moot and, therefore, Applicants respectfully request reconsideration and allowance of Claims 1-80.

III. Rejections under 35 U.S.C. § 102

The Examiner rejected Claims 1, 2, 7-16, 26-34, 41, 42, 44-75 and 77-80 under 35 U.S.C. § 102(b) as anticipated by Brown et al. (U.S. Patent 5,557,686). Applicants respectfully traverse the Examiner's rejection.

Brown et al. is directed to determining whether a user of a system is an authorized user by examining the keystroke characteristics of the user. Brown et al. does not describe or disclose displaying a list of characteristics that distinguish members of a group from a general population.

In making the rejection, Examiner considered only a small portion of the features recited in each of the aforementioned claims in isolation and failed to consider the feature or claim as a whole. MPEP 2106 expressly states that the Examiner "may not dissect a claimed invention into discrete elements and then evaluate the elements in isolation" and that "every limitation in the claim must be considered."

With reference to independent Claim 1, the Examiner dissected the first feature and indicated that the first portion of the feature, "retrieving information identifying," is anticipated by Brown et al. col.2, lines 3-7, where it recites, in part, "one object of this invention is to provide a method and apparatus for verifying the authenticity of a user of a system." The cited reference fails to disclose, suggest or teach the step of "retrieving information identifying, for each of a plurality of groups, users that are members of the group." One typically processes some type of information in order to verify the authenticity of the user, but the processed information is associated solely with the user (e.g., the user provided the information). Moreover, the same user may provide information that is different from information previously provided at a prior time. In contrast, in Applicants' invention, the information identifies users that are members of a group, which can be more than one user. Thus, for at least this reason, "verifying the authenticity of a user of a system" is distinct from and not the same as "retrieving information identifying . . . users that are members of the group."

The Examiner also dissected the second feature and indicated that the first portion of the feature, "for each group, analyzing properties," is anticipated by Brown et al. col. 2, lines 22-25, where it recites, " [t]he self-organizing [neural] network outputs purified samples of the authorized user which are similar in nature to each other while discarding samples of the user which are not similar." The cited reference fails to disclose, suggest or teach the second feature for at least the reason that the purified samples of a single user (i.e., the authorized user) are distinct from and not the same as

the properties of the members of the group. The purified samples are associated with one user (the authorized user) while the properties are associated with the members of the group. Moreover, the Examiner completely failed to consider the latter portion of the second feature, which states "the analyzed properties relating to interactions with the subject Web site undertaken by the users."

With reference to the third feature, the Examiner stated that "displaying the properties identified as distinguishing members of the selected group from users that are not members of the selected group" is anticipated by Brown et al. col. 13, lines 48-59, where it recites, in part, "the invention is not limited to giving a specific response once the user is determined to be authorized or an imposter but is applicable to any type of response to the authorized user/imposter determination." Under any reasonable interpretation of the cited reference, the cited reference fails to disclose, suggest or teach the third feature for at least the reason that a response given once the user is determined to be authorized or an imposter is distinct from and not the same as the displaying of the properties that distinguish members of a group.

With reference to the fourth feature, the Examiner stated that "receiving user input specifying a name for the selected group" is anticipated by Brown et al. claim 3, where it recites, in part, "wherein the purifying step uses a self-organizing neural network to group said imposter training signals and said user training signals into clusters having similar keystroke characteristics." The cited reference fails to disclose, suggest or teach the fourth feature for at least the reason that grouping training signals into clusters having similar keystroke similarities is distinct from and not the same as receiving input specifying a name for the group. Where the user can input the name of the group via a sequence of keystrokes, this is distinctly different from the "keystroke characteristics" as disclosed by Brown et al.

With reference to the final feature of independent Claim 1, the Examiner dissected this feature and indicated that the first portion of the feature, "persistently storing," is anticipated by Brown et al. col, 6, lines 5-22, where it recites, in part, "terminal 100 might contain the program used to determine whether the user is authorized or an imposter." The cited reference fails to disclose, suggest or teach the

final feature for at least the reason that a terminal containing a program is distinct from and not the same as persistently storing the specified name. Moreover, "enabling the specified name to be displayed in conjunction with the selected group at a future time" as recited by the latter part of the final feature is not and cannot be the same as a terminal containing a program used to authorize a user as disclosed in Brown et al.

Accordingly, Applicants respectfully request reconsideration and allowance of Claim 1. Furthermore, Claims 2-6 depend from and further limit Claim 1 and are therefore allowable on the same basis as Claim 1.

With reference to independent Claim 7, the Examiner indicated that the first feature of Claim 7 is anticipated by Brown et al. col.2, lines 3-7, where it recites an object of the invention as disclosed in Brown et al. For at least the reasons stated and discussed above, the cited reference fails to disclose, suggest or teach the first feature of Claim 7.

With reference to the second feature, the Examiner indicated that this feature of Claim 7 is anticipated by Brown et al. col. 2, lines 22-25, as recited above. The cited reference fails to disclose, suggest or teach the second feature for at least the reason that outputting purified samples of a single user (i.e., the authorized user) is distinct from and not the same as "analyzing attributes of the items of the group to identify the attributes that distinguish items that are members of the group from items that are not members of the group." Similar to the reasoning provided above in conjunction with Claim 1, the cited reference discloses processing of input provided by a at most a single authorized user, which is not the same as analyzing the attributes of the items of the group in that there may be more than one item in the group.

Accordingly, Applicants respectfully request reconsideration and allowance of Claim 7. Furthermore, Claims 8-25 depend from and further limit Claim 7 and are therefore allowable on the same basis as Claim 7.

With reference to independent Claim 26, the Examiner indicated that the first and second features of Claim 26 are also anticipated by the same cited references to Brown et al. as used in Examiner's rejection of the first and second feature of Claim 7,

respectively, as discussed above. For at least the same or similar reasons stated and discussed above in conjunction with Claim 7, the cited reference fails to disclose, suggest or teach the first and second features of Claim 26.

Accordingly, Applicants respectfully request reconsideration and allowance of Claim 26. Furthermore, Claims 27 and 28 depend from and further limit Claim 26 and are therefore allowable on the same basis as Claim 26.

With reference to independent Claim 29, the Examiner indicated that the first and second features of Claim 29 are anticipated by the Brown et al. col. 13, lines 48-59, as recited above. In particular, the Examiner reduces the both the first and second features to "displaying the stored data" and proceeds to state that this is "well within the broadest reasonable interpretation of [the cited reference]." Examiner makes specific reference to the portion of the cited reference that states "the invention is not limited to giving a specific response once the user is determined to be authorized or an imposter, but is applicable to any type of response to the authorized user/imposter determination." Applicants submit that the Examiner failed to give a reasonable interpretation of the cited reference of Brown et al. In addition to the same or similar reasons to those provided above with reference to Claim 1, any reasonable interpretation of the cited reference of Brown et al. requires that the response in the cited reference is given once the user is determined to be authorized or an imposter, and this fails to disclose, suggest or teach the features of Claim 29, which does not require a user to be authenticated.

Accordingly, Applicants respectfully request reconsideration and allowance of Claim 29. Furthermore, Claims 30-58 depend from and further limit Claim 29 and are therefore allowable on the same basis as Claim 29.

With reference to independent Claim 59, Applicants respectfully point out that the Examiner's reasons and formatting of the reasons for rejection are confusing and not clear in that, as formatted in the office action, the Examiner seems to have failed to address the last feature of Claim 59. Because the Examiner used the same reference in Brown et al. to reject the other features of Claim 59, Applicants will assume that this same reference will be applied to the last feature of Claim 59.

The Examiner indicated that each of the features of Claim 59 is also anticipated by Brown et al. col. 13, lines 48-59, as recited above, in that each of the features are "well within the broadest reasonable interpretation of [the cited reference]." The Examiner again made specific reference to the portion of the cited reference that states "the invention is not limited to giving a specific response once the user is determined to be authorized or an imposter, but is applicable to any type of response to the authorized user/imposter determination." Applicants again submit that the Examiner failed to give a reasonable interpretation of the cited reference of Brown et al. and that, in addition to the same or similar reasons to those provided above with reference to Claim 1, that any reasonable interpretation of the cited reference of Brown et al. requires that the response in the cited reference is given once the user is determined to be authorized or an imposter, and this fails to disclose, suggest or teach the features of Claim 59, which does not require a user to be authenticated.

Accordingly, Applicants respectfully request reconsideration and allowance of Claim 59. Furthermore, Claims 60-63 depend from and further limit Claim 59 and are therefore allowable on the same basis as Claim 59.

With reference to independent Claim 64, the Examiner indicated that Claim 64 is also anticipated by Brown et al. col. 13, lines 48-59, as recited above. Other than again making a specific reference to the portion of the cited reference that states "the invention is not limited to giving a specific response once the user is determined to be authorized or an imposter, but is applicable to any type of response to the authorized user/imposter determination," the Examiner gave no statement or indication as to how the language of the claim has been interpreted to support the rejection as required by MPEP 2100. In response, Applicants point out that the cited reference of Brown et al. has to do with a response that is given subsequent to an authorized user/imposter determination. This is distinctly different than and fails to disclose, suggest or teach "a plurality of indications each indicating one of a plurality of possible characterizations of groups of items" as recited in Claim 64.

Accordingly, Applicants respectfully request reconsideration and allowance of Claim 64. Furthermore, Claims 65 and 66 depend from and further limit Claim 59 and are therefore allowable on the same basis as Claim 64.

With reference to independent Claims 67 and 77, the Examiner indicated that each of the claims is also anticipated by Brown et al. col. 13, lines 48-59, as recited above. In each rejection, other than again making a specific reference to the portion of the cited reference that states "the invention is not limited to giving a specific response once the user is determined to be authorized or an imposter, but is applicable to any type of response to the authorized user/imposter determination," the Examiner gave no further statement or indication as to how the language of the claim has been interpreted to support the rejection as required by MPEP 2100. In response, Applicants point out that the cited reference of Brown et al. has to do with a response that is given subsequent to an authorized user/imposter determination. This is distinctly different than and fails to disclose, suggest or teach "information identifying one or more characteristics that distinguish typical items in the group of items from typical items outside the group of items" as recited in each of Claims 67 and 77.

Accordingly, Applicants respectfully request reconsideration and allowance of Claims 67 and 77. Furthermore, Claims 68-76 and Claims 78-80 depend from and further limit Claims 67 and 77, respectively, and are therefore allowable on the same basis as Claims 67 and 77.

IV. Conclusion

In view of the foregoing, Applicants respectfully submit that Claims 1-80 are allowable and ask that this application be passed to allowance. If the Examiner has any questions or believes a telephone conference would expedite prosecution of this application, the Examiner is encouraged to call the undersigned at (206) 359-8000.

Respectfully submitted,
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